



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,678	06/01/2000	Eric E. Ellingson	60191	4533

23735 7590 10/01/2003

DIGIMARC CORPORATION
19801 SW 72ND AVENUE
SUITE 100
TUALATIN, OR 97062

EXAMINER

PATEL, SHEFALI D

ART UNIT	PAPER NUMBER
----------	--------------

2621

DATE MAILED: 10/01/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/585,678

Applicant(s)

ELLINGSON, ERIC E.

Examiner

Shefali D Patel

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2621

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on June 30, 2003.
2. The amendments to Figures 2-3 have been approved.
3. The amendments to the specification have been approved.

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 2-3 objected to because of the following informalities: Claim 2 line 2 states: "auxiliary message, and:." This ought to be "auxiliary message, and". Please delete ":" it is unnecessary. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 11, and 15-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Musgrave (USPN 6,208,746).

Art Unit: 2621

With regard to **claim 1** Musgrave discloses a method for capturing and encoding (See, col. 2 lines 20-30) a user attribute (i.e., retinal scan, fingerprint, etc. See, col. 3 lines 20-23) in a media signal (i.e., an electronic data image), the method comprising: in a media signal capture device (scanner or a system, see col. 3 lines 19-20), capturing a user attribute of a user of the media signal capture device (capturing retinal scan, fingerprint, etc. with a scanner or a system, see, col. 3 lines 19-24); wherein the user attribute comprises an image of an identifying characteristic of the user (See, col. 3 lines 13-16); encoding a representation of the user attribute into a media signal captured by the media signal capture device (encoder 26 encodes biometric data into an electronic data bit stream (i.e., audio, video, imagery, software, graphics, text, etc.) See, col. 3 lines 40-49).

With regard to **claim 2** Musgrave discloses the user attribute (i.e., fingerprint or retinal scan) forming at least part of an auxiliary message (data stream of the user attribute, see col. 3 lines 19-24) and embedding (encoder 26 embedding biometric data 24 in data bit stream 20, col. 3 lines 41-49) the auxiliary message into the media signal (See, col. 3 lines 27-28).

With regard to **claim 3** it is inherent that the embedded message is substantially imperceptible to a human. Note: One of the many reason for embedding is to have the information embedding imperceptible to human for possible forgery.

With regard to **claim 4** Musgrave discloses the media signal (i.e., data bit stream) is being an image (imagery, col. 3 lines 47-49) and the media signal capture device is a (camera or) scanner (scanner 22 at col. 3 lines 19-20).

With regard to **claim 5** Musgrave discloses the media signal is being a sequence of video frames (Musgrave discloses of encoding in MPEG (Moving Picture Experts Group) which is a

Art Unit: 2621

sequence of video frames, see col. 3 lines 45-47) and the media signal capture device is a video camera (it is inherent to capture a sequence of video frames because a video camera is required to acquire video frames).

Claim 11 recites identical features as claim 1 except claim 11 is a system claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 11. Applicant's attention is invited to Fig. 1 of Musgrave where a system is disclosed.

With regard to **claim 15** Musgrave discloses encoder for embedding the user attribute into the media signal (encoder 26 embedding biometric data 24 in data bit stream 20, col. 3 lines 41-49).

Claim 16 recites identical features as claim 5 except claim 16 is a device claim. Thus, arguments similar to that presented above for claim 5 is equally applicable to claim 16.

With regard to **claim 17** Musgrave discloses the user attribute capture unit including an image sensor for capturing the image of the identifying characteristic of the user (image sensor within the scanner used to scan the biometric data of the user. See, col. 3 lines 19-22).

With regard to **claim 18** Musgrave discloses user attribute including a voice recording (i.e., speech pattern, See, col. 3 line 221-23).

With regard to **claim 19** Musgrave discloses user attribute being a retinal scan (See, col. 3 line 20).

Claim 20 recites identical features as claim 1 except claim 20 is a decoding claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 20.

Art Unit: 2621

Applicant's attention is invited to Fig.1 of Musgrave where a decoding system is disclosed.

Also, see respective portion in the specification for decoder 30, col. 4 lines 6-40.

With regard to **claim 21** Musgrave discloses the decoding (decoder 30) comprising decoding the representation of the user attribute data from the media signal (decoding biometric watermark at col. 4 lines 36-39).

With regard to **claim 22** Musgrave discloses the user attribute data comprising a retinal scan (See, col. 3 line 20).

With regard to **claim 23** Musgrave discloses the user attribute data comprising a fingerprint scan (See, col. 3 line 21).

With regard to **claim 24** Musgrave discloses the user attribute data comprising a representation of a voice recording and the representation derived from the image of the identifying characteristic of the user (speech recognition, See, col. 3 line 221-23).

Claim 25 recites identical features as claim 20 except claim 25 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 20 is equally applicable to claim 25. Musgrave discloses a computer readable medium seen in Fig. 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2621

6. Claims 6-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Musgrave ('746) in view of Musgrave et al. (USPN 6,377,699) (herein after "'699").

Claim 6 is rejected the same as claim 1 ('746). Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 6. Claim 6 distinguishes from claim 1 only in that it recites the media signal capture device being a camera with an eyepiece and including: capturing a retinal scan of the user through the eyepiece. '699 discloses the media signal capture device being a camera with an eyepiece (imager 100 (digital camera) in Figs. 2A and 4) and including: capturing a retinal scan of the user through the eyepiece (capturing iris scan 150, 109 through the plane 140 in Fig. 2A. See, col. 5 lines 9-17 and col. 6 lines 61-65). '699 captures the image of the iris rather than retinal scan. However, '746 disclosing scanning a retinal scan. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of '699 with '746. The motivation for doing so is that it would be obvious to take an image of the retina (the same way the image of iris is being captured in '699) to compare and authenticate the user for certain accessibility right and for ownership (i.e., watermark). Therefore, it would have been obvious to combine '699 with '746 to obtain the invention as specified in claim 6.

With regards to **claim 7**, the recited features are the same as those in claim 1 (i.e., capturing the retinal scan of the user and encoding), and the arguments in paragraph 4 above as to the relevance of '746 are incorporated herein.

With regard to **claim 8** '699 discloses image sensor 100 as seen in Fig. 2A (col. 5 lines 6-11).

Art Unit: 2621

With regard to **claim 9** '699 discloses the image sensor used to capture the retinal scan the same as the image sensor in the camera (imager 100 uses a digital camera, col. 6 lines 61-65).

With regard to **claim 10** '746 discloses hashing a retinal scan image into retinal scan data (the biometric image scanned is transferred into biometric encoded bit stream 28. See, col. 3 lines 25-28 and col. 4 lines 6-8).

Claim 12 recites identical features as claim 6 except claim 12 is a device claim. Thus, arguments similar to that presented above for claim 6 is equally applicable to claim 12.

With regard to **claim 13** both '699 and '746 discloses camera and a scanner, respectively that includes an image sensor.

With regard to **claim 14** '746 discloses the use attribute being encoded into the subject image (i.e., media signal) in response to user input instructing the user attribute into the media signal (user attribute is being scanned in order to embed the user attribute in the media signal as described above in claim 1. See, col. 3 lines 40-49).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2621

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D Patel whose telephone number is 703-306-4182. The examiner can normally be reached on M-F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


DANIEL MARIAM
PRIMARY EXAMINER

Shefali D Patel
Examiner
Art Unit 2621

September 22, 2003